

U. S. DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

Form Bi-689

FIELD DIARY

Mr. Vernon Bailey

Minnesota,
(Official title.)

Period, May 30 to Aug. 7, 1932

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Dr. R. G. Grune, Mallard Hall, 219 M.

Dr. Henrici, Cushing, Minn. R.F.D.

Hilman Lake, - Carlton

Geo H. Johnson, Washkish, Minn. (trapper)

R. F. Smith, fire guard, Washkish, Minn.
home at 1923, W. ^{Third} ~~Fourth~~ St. Duluth

Walter Hunsel, Washkish, Minn. game warden

Oliver Larsen, fire guard, near Duluth.
summer at Schroeder.

Paul Newcom, Schroeder, & Grand Marais

R. A. Zeller, Supervisor, Ely, Minn.

A. J. Allen, Bearskin Lake, Coon. Box 337

Grand Marais, send boxes full
mushrooms, Zaidunay, live trapping.

Sam^d Anderson, Hutchinson, Minn.

May 30 Monday, 1932

Left Washington 8 P.M., B & O
for St. Paul, Minnesota to go with
C. M. Aldous - others are the
western part of the state to study
game conditions, mainly to get
at methods of studies - to
see in to younger than the knowledge
of experience of my 50 years of
field work.

May 31 - A pleasant morning
in southern Ohio, en route
to Chicago where I arrived 2 P.M.
Went to Field Museum on arrival
and back to C & N station in
time for 8:20 train to St Paul.
A pleasant day, good trains
and beautiful country.

June 1 1932

Arrived St. Paul 7:25 AM
after a good breakfast on
train and went to University
Farm School where I met
Aldous at 8:30.

Also met Dr. King and
Dr. Green and Raphael John

Could not see Dr. Roberts as
he was off on a bird class
Mr. W.B. Henderson and Mr.

Stief came at 1 PM we
went with them to the fish and
game commission to see Thad
Sniper and had a good visit
with him regarding game conditions
in northern part of state.

Then took bus to Elk River
and staid over night until
Mr. Aldous should pick me
up there on his way north

June 3, Alderis arrived at 10 AM and we drove to Lake Alexander where Dr. Green has his biological laboratory and set traps till after dark.

His camp is on the island out in a big beautiful lake and we set traps on the island as well as the mainland.

Got a *Geomys bursarius* and ~~three~~ *Microtus* before dark and set a pole trap for owl on island.

Birds and mammals are abundant and the snowshoe rabbits have eaten about all they could on the island, killing most of the young pine of 3 species, tamarack, aspen, willow, maple, red oak, and ~~aspen~~, and many other species.

Mr. Cox camp at 4 PM.

June 4, Caught a lot of Peromyscus
but nothing else except a Gapus.
Made up a few specimens for
Dr. Green to keep at the station
and to show his men how to do it.
Then went over a big tract
of woods west of the lake where
he is making studies of
rabbits and other native life
in relation to diseases. Found
a bunch on a hill top and packed
with the Greens, going west
to Wadena and north to
Park Rapids and Lake Itasca.
Saw beaver trap just north of
Schoolcraft Island.

Saw deer and elk, raccoon
and snowshoe rabbits, woodchucks
chipmunks and red squirrels.

June 5, Sunday,

The beavers put popple branches in the trap so the game did not close and got out. Reset trap in another place and at 9 PM found it sprung and empty.

Went up west arm of lake and out to a much used beaver lake where the aspen is cut as far back as they dare go, about 100 to 150 yards. Most of the beavers are gone somewhere else. In P.M. went over to Squaw Lake in NW corner of park and found many beavers in and above and below the lake but generally they have cut most of the aspen within reach of the shores. Saw two very large old beavers in the pond above Squaw Lake and some of the finest damns I ever saw.

Main at Stasea Lake. June 4 56.

Moose, one in park

Elk, about 40 in park, possibly more

Deer, abundant, too many to count, not too many further back, no deer this except along lake shores and abundance of feed.

Snowshoe rabbits. Abundant and tame

Cottontails - common

Gray squirrels, imported, doing well

Red squirrels, a few and very tame.

Flying squirrels

Chipmunks, common

Franklin's ground squirrels

Woodchucks, common. very dark brown

Beavers, numerous, food mostly cutters
shaded in regulated.

Weasels, common. go in beaver towns

Skunks,

Mink

Weasels

Bats

Saw lots of deer and one small very young fawn that had been captured. Saw many snowshoe rabbits, woodchucks and three porcupines; including one very small and young, probably a week or two old. He cried or squeaked when I caught him under my cap and was so scared he would not let me pet him. Got my cap full of quills of sticks some in my hands and legs. He was very black all over. Saw two big poplars up a big white pine tree and saw a small white pine 50 feet high, almost completely barked from near the bottom to the top. One tamarack was also seen almost denuded of bark.

Saw a few muskrats, one in beaver house

Birds, Lake Itasca Lake. June 4 to 6.

Loons - a pair

Dolchick - 1 heard?

Blue heron. com. Nest colony to south

Bittern

Ruff Grouse, com. during

Blue wing teal, 1

Barn owl heard

Sparrow hawk. 2

Marsh hawk

Turkey buzzard. 1, com

Kingfisher 1

Pileated woodpecker heard

Dryobates com

Red head,

Sphyrapicus

great crest

Phoebe & nest

Empidonax

Black terns com.

Killdeer a few

Nighthawk " "

June 4, Monday, Itasca Lake,
Failed again to get the beaver
and had to give it up as we can
not wait longer.

Left Itasca Lake at 9 AM,
and drove to Bemidji, then to
Black Duck and north to Mankato
on Red Lake.

The caribou are said to be up
north of Red Lake and on
near Pine Island NE of here.

Game Warden Walter Hamed says
he saw 4 last March about
5 miles north the north shore of
Red Lake, north of the mouth of
Saw River. He thinks there are
6 or 8 and possibly 10 in there
now and we are going to see
tomorrow, starting at 5 AM.

A warm day, 90 at 2 PM.

lake lakes

Purple martin, com. breeding, tons,
Barn swallow
Bank swallow
Horned lark, a few
Bluejay, "
Crows, young in nest,
Redwing com
Brewer's blackbird "
Cowbird "
Purple grackle ?
Mockingbird, com - -
Oriole "
Orebird oriole a few
Vireo - red eye, com
" Bluehead ? a few
Nuthatch vireo "
Yellow warbler com
Redstart "
Maryland "
House wren "
Short bill of marsh wren "

Chewink com
Rosebreast ?
Goldfinch, com
Song sparrow "
Chipping " "
White throat " in swamps, many
Robins "
Thrush - veery ? a few
" - hermit, com.
Kingbird com
Swift "

Mr. Foy who has lived on
Pine Island for many years
says he has seen 150 caribou
around there 30 years and
he has seen as many as 18
up north of Red Lake where we
are going tomorrow. He is
old and rather feeble and much
better long ago than recently.
Says he never knew of a painter
or woodpecker in this state
but has seen lots of water
and fishers and thinks there
are a few now.

Deer are pretty common here
and tracks and deer are frequently
seen. One of the

Trapper Geo. H. Johnson -
Saw ^{7 also caught} & captured a ^{kind of} 8
about 3 weeks ago, on Rapid River
18 miles N + 18 west of Washburn,
probably all there are in that
section.
157, 32, Ser. 7.
Now having young.

Moose are numerous

Many timberwolves in the
Caribou vicinity and 8 of them
still there, one caught -

Red foxes abundant in 1905
to 1911 then poisoned for fur.
Some fellows had set 100
baits for foxes

Red Lake

Waskish, Minn., June 4-7

Swan, abn on Red Lake in migration
 Canada geese, a few in migration
 Mallards, a few, 1 old ad 7 yg, in ditch
 Blue wing teal, 1
 Herring gulls 3
 Black tern, 1, a few
 Blue heron, 2
 Killdeer com.
 Spotted sandpiper 1
 Pinnated grouse, a few
 Sharpshin " 20 seen.
 Spruce grouse, a few
 Ruffed grouse, com.
^{Spurred hawk} Marsh hawk 1
^{Broadwing hawk} Great horned owl, pilot + feathers
 Dryobates
 Sphyrapicus 1
 Red hooded v. 1
 Flicker
 Crows 1

June 7, Tuesday, Waskish,

Drove along north shore of North Red Lake, about 18 miles near to mouth of Deer River, then straight north on foot along the main ditch for 5 or 6 miles to Hilman Lake, where the caribou lives.

This great swamp country has been ditched on section lines both ways through an enormous swamp country. For about 3 miles back it has all burned over or generally a foot to two feet of peat burned out. Still further back it is native swamp of water lily, lotus, tea, dwarf laurel, cranberry, sphagnum and scattered small black spruce and small tamarack pitcher plants, sedges, cottongrass and mosses and a little poor grass

Red Lake

Phoebe + 3 nests
 Kingbird " "
 Great Crested, heard
 Empidonax, heard
 Ampelis garrulus 4
 Barn swallow com.
 Purple Martin "
 Crows "
 Redwing "
 Cowbird "
 Meadowlark "
 Baltimore Oriole "
 Oriole " a few
 Tanager "
 Rosebreast grosbeak, "
 Pine grosbeak, "
 Chewink com a few near Burnie
 Zonotrichia albicollis, com.
 Vesper sparrow a few
 Savanna sparrow a
 Song sparrow "

Found caribou tracks at 3 miles
 back and saw two caribou
 and lots of tracks at 5 miles
 back. Saw a bull moose, two
 cows and 3 calves.

lots of sharp tailed grouse, one mated
 with 4 young, a teal and many
 sparrows.

Cloudy and cold. rained
 a little at noon.

Rough walking on ditch bank
 and hard walking in spruce.

Went up Judicial Ditch No. 30
 to section of lateral No. 1.
 in Sec 5, 155, 32,

Hillman Lake in SE 1/4 Sec (near center Sec)
 Sec. 32 - Twp 156 - R 32

Red Lake

Chipping sparrow	a few
Field sparrow	"
Juncos	com
Gold finch	"
English sparrow	"
Red eyed vireo	"
Maryland yellow throat	"
Yellow warblers	"
Red start	"
Marsh wren, 5 bill,	1
House wren	a few
Blue jay,	1 heard
Robin	abu.
Grackles	3
Catbird	said to be com.
Bobolinks	2

Plants Workish,

<i>Pinus borealis</i>	com
" <i>resinosa</i> ,	"
" <i>strobus</i>	com.
Juniperus Aspen	abu.
Bittersweet	com
<i>Balsam populus</i>	"
<i>Betula alba</i>	"
" <i>pendula</i>	"
Boxwood	"
Birch	"
Red oak	"
White ash	"
Black ash	"
Maple, 3 sp.	"
Boxelder	? -
<i>Picea rubra</i>	abu.
" <i>nigra</i>	"
<i>Abies balsamea</i>	"
Thuja	common locally
Mountain ash	com.
Pink cherry	"
Choke cherry	"
<i>Amelanchier</i>	"

Red Lake

Willow - many, abas.
 Hatties bog "
 Lobelia etc. "
 Kalinise "
 Cassandra "
 Cranberry "
 Arctostaphylos uva-ursi "
 Pitcher plants "
 Sphagnum "
 Polytrichum juniperinum "
 Empetrum nigrum in one place
 Cornus stolonifera com
 " canadensis "
 Red / apls "
 Ribes "
 Galaxiea "

Ranige ^{Red Lake} 8 reported, 2 seen, tracks com
 Moose in big swamp 9 seen, 3 calves
 Deer, 2 seen, about 10 reported
 Snowshoe Rabbit com
 Porcupine
 Woodchuck holes com
 Franklin's ground squirrel 1
 Beaver 1 in
 Muskrats com.
 Mink scarce, 1 fresh sign
 Wolf 9, 1 caught, old signs, winter
 Coyote, tracks com. near lake
 Raccoon, scarce at lake
 Grouse a few on sandy ridges
 Fishes, said to be a few
 Marten, probably all gone,
 Wolverines, most heard of
 Panther " " "
 Bear, a few, one ♀ + 2 cubs near town
 Red squirrels, com.
 Fox, all gone, poisoned for fur, 1911
 Otter, a very few

June 8. Left Red Lake 9 AM,
returned to Bemidji and to
Cass Lake, Cool and clear,
and the country is beautiful after the
rain, dense with verdure and
bright with flowers.

Song birds are abundant

Little farming but some fields of
grain and many gardens.

Some good clover and alfalfa
fields and a few dairies.

Very little lumbering.

Many summer cottages and
resorts along the lake shores,
and many beautiful lakes.

At Cass Lake stopped at
Mrs. C. M. Taylors, a pleasant
and inexpensive place to stay.

Went out to Aldous' rabbit pens
but found most of the rabbits had
escaped. He will have to catch
them over again.

June 9 Cass Lake,

Went out about 10 miles NE of Cass Lake on the Burnt Lake, Tokant road to the Jack Smith Plantation planted to young Norway pines in the same place I went over in Sept. 1930. About 100 young burnt over land on sandy low ridges were set out and about 2 percent of the young trees are living of from 1 to 2 feet high. Some dead ^{pine} trees still standing have been ripped by snowshoe rabbits and a few by deer. Most of the dead trees found ^{kindly} have died of death as have many of the prairie willows, ^{oaks, willows,} hags, and cherries, jessy tea, pin cherry, choke cherry, rose and other bushes.

Grass and low vegetation is dense and the brush is coming in too thick for the good of young trees but the pines that have lived so far are pretty safe.

Cass Lake

Deer	com
Snowshoe rabbits	"
Cottontails	a few
Gray squirrels	"
Red squirrels	com
Chipmunks	"
Citellus, Thimothus	a few
Citellus pennsylvanicus	"
Woodchucks	"
White foot mice	com
Microtus	"
Eutamias	"
Muskrat	"
Bear	now near
Porcupine	a few, no signs
Grounds	com.
Skunks	"

Snowshoe rabbits live in the tamarack & spruce swamp nearby and have cut some small park pines on the open high ground but only one of probably a hundred noways had been ripped at the top by rabbits.

A few cottontails also occur but no damage noted.

Deer are common and a few tracks seen but no fresh ripping on the Norway pines. They also were browsing on Ceanothus.

Amelanchier and hazel, very little on aspen or willow.

Ceanothus is abundant and a favorite food, as is Amelanchier.

A few pocket gophers still are scattered over the sandy upland but no damage noted.

Probably a few ground squirrels and plenty of Microtus.

Cass Lake

in the grassy marshes.
Red squirrels only in the swamp.
Seed trees few and widely scattered.
Very little of the damage can be
attributed to animals: mostly
to poor planting, drought and
cover competition.

The land should be replanted
after burning over or in
broad shallow furrows of a
12 inch breaking plow.
Trees should be planted to
allow for a 50 percent loss, or
more. The soil is ideal for
heavy timber growth as shown
by old forest trees.

Went to rabbit pens in P.M.
and over the marked trees in natural
woods to check damage by deer and
snowshoe rabbits. Found a moderate
loss but not very serious -
Set traps -

Casco Lake June 9-10

Loon	a few
Dowitcher 1	
Golden eye ducks	3
Ringneck "	3
Scalp ♂	1
Bluewing teal	2
Black tern	abn, nesting
Pelican	1 spotted June 9
Ruffed Grouse	com, nesting, drinking
Belted pheasant	1 ♂
Buteo	
Bubo	
Pileated woodpecker	heard
Dryobates	"
Colaptes	com
Kingfisher	1
Cuckoo	heard
Kingbird	com
Phoebe	"
Empidonax	com
Great crest	heard

Barn swallow	com
Roughwing	"
Martin	breeding in trees, com
Tree swallow	" " "
Barn Thrasher	com
Catbird	" nest
Hermit Thrush	"
Vireo	a few
Blue Jay	com
Crow	com
Grackle	a few
Redwing	com
Cowbird	"
Mockingbird	"
Oriole	"
Tanager	"
Red-eyed vireo	"
Warbling vireo	"
House wren	"
Green Heron	heard
Yellow warbler	" nest 4 eggs.
Redstart	"
White-throated sparrow	a few
Song sparrow	"

Cass Lake June 9-10

Chipping sparrow, com & nesting
Veery sparrow "
Gold finch a few

June 10, Cass Lake,
Out to traps, got 2 Blushing
ed & *Uridus similis* *truncatus*.
Wrote reports all afternoon

June 11, Got mail and started for
Ely, via Grand Rapids, Hibbing,
Virginia City and Tower, arriving
at Ely about 4 PM. Saw Forester
men and talked over plans
for working this part of the state.
Put up at Forest Hotel.

June 12, Sunday.

Went out to Newton to see Bill
Hansen, District game warden
and got much information on
moose and caribou and muskrats
and beavers. He is a very intelligent
man and a good warden. I showed
him how to catch beavers alive in
1922. Set traps.

Cass Lake

Ely, Minn. June 13-15-

Loon - several heard
Dabchick, - one heard
Herring gull, 2 on Ninamoose Lake.
Golden eye, 15 seen on river June 13.
Black Terns, a few.
Ruffed Grouse, Common, yg. seen April 13.
Spruce grouse, A few in places.
Sharp tailed grouse, A few here.
Fish hawk, one on Ninamoose Lake, June 15.
Golden eagle, one mounted
Bald eagle, a few, photo of yg & 1 mounted.
Butor lineatus, two seen.
Goshawk, A few, one mounted.
Bubo, one dead in road, half grown
snowshoe rabbit in stomach.
Marsh hawk, one on road here.
Kingfisher, a few, 2 nests.
Pileated woodpecker, a few. scarce.
Flicker, com.
Dryobates, a few
Cuckoo

June 13, Ely,

Drove down to Berch Lake
Hot Iron Lake and a circle
of tree plantations to see the
effect of rabbits and deer and
porcupines and mice on the
young conifers that had been
set out under varying
conditions.

Rabbits and deer had
injured and killed many
young pines and spruces
and in places had taken
more than half the trees.
In other places very few.

In one plantation of white
and Norway pines the porcupines
had killed or seriously injured
about half the trees on 40 acres
or more. I counted 80 trees
that were practically killed.

birds - Ely, Minn. June 13-15 -

Kingbird, com
Contopus borealis, 1 on Wood R. June 15.
Phoebe, com. nesting.

Empidonax "
Perisoreus, a family on Portage R. June 15.
Blue Jay, com.
Crow, "
Purple grackle, "
Redwing, "
Cowbird, "
Meadowlark, "
Orochi, a few
Scarlet Tanager, "
Red eye vic, com
Warbling, a few
Chimney swift, com in Ely
Night hawk, "
Purple martin, "
Barn Swallow, "
Bark, "

June 14, Ely, Minn.

Went to traps early and
got 2 *Synaptomys*, 2 *Microtus*,
pennsylvanicus, 1 little *Sorex*
and a lot of *Blarina*,
all out in or near the
sphagnum swamps about 4
miles SE of Ely.

Returned to Ely, got grub
and started on the road
north of Burntside Lake
and on to the ^{Portage} River
Cabin on the St. Croix
Trail. After lunch drove
on to Cold Springs station
some 8 or 10 miles and then
returned to the Portage River
Cabin and set the beaver
traps and made up specimens.

Saw many deer, lots of moose
tracks and some bear tracks.

Ely, Minn.
 House wren, com
 Shortbilled nuthatch, 1 heard on road to Ely.
 Winter wren, 2 heard on Moose River.
 Cat bird, 1 seen
 Brown thrasher, seen on road in.
 Robins com.
 Bluebird, 1 on road in.
 Ovenbird, com.
 Maryland yellowthroat, com.
 Yellow warbler abn.
 Redstart, a few
 Rosebreasted grosbeak, seen
 Chipping sparrow?
 Goldfinch, com.
 Whitethroat, "
 Song sparrow "
 Chipping sparrows - 1 heard, 1 feeding.
 Vesper sparrow, a few along road.
 English sparrow, abn.

June 15. Portage River Cabin.

No beaver in trap, took it up.
 Drove west 3 1/2 miles to Moose River
 and took a canoe down to Mina Moose
 Lake, about 3 miles, probably 4 by
 crooked turns. A beautiful lake,
 one cow moose, many tracks,
 4 deer and hundreds of tracks.
 Then beaver houses along Moose
 River and 19 dams, mostly cut
 through for boats. Saw through
 12 of them and carried canoe over 7.
 Probably 20 beavers along river
 now but should be 100.
 Lots of muskrat and mink tracks
 One porcupine and several tracks
 One porcupine climbed our cabin
 screen door in night.
 Chipmunks & woodchucks not seen
 anywhere.

~~blue jays~~
Canada jays, ^{blue jays,} ⁱⁿ clear hawkbirds,
northern warblers, olive-backed
flycatcher, winter wren, junco,
white-throated sparrow, tanager,
spruce grouse, partridge, and many
other birds were seen or heard or
reported. The country is pure
Canadian zone in fauna and
flora.

Porcupines, woodchucks, muskrats,
beaver, snowshoe rabbits,
Eutamias, red squirrels, common

Most interesting country,
beautiful lakes and streams and
timber. Lots of fish and game.
Bear traps at Postage River
No wood ticks, many mosquitoes
and gnats

~~Grand Marais - Grand Marais Lake Sawbill Lake~~

Loons. a few nesting

Sheldrakes, a pair, nest here

Blacks Mallards, and yg. on Harnett Lake,

Great Blue Heron, a colony on nest lake. a few here

Owls, great horned & great gray reported

Pileated woodpecker, heard

Flicker com.

Ruffed grouse, com

Spruce grouse, a few

A hawk nest at Lake Coburn -

Empidonax, heard

Red eye vireo, singing

Crow, a few, nesting

Canada Jay. a few

Blue Jay

Grackle

Hermit Wren com.

Veery a few.

Winter Wren

House Wren

Song Sparrow com

White Throat "

June 14 Ely.

Went to see Dr. E. J. Thompson
and talk over moose ticks.

He had many specimens and
has had the ticks identified as
Oenoseius albipictus.

Has many egg masses not yet
hatched. Does not know as

the ticks kill moose by draining
vitality or by disease,

says the ticks all have the
moose in May. Wants to

know intermediate hosts of
ticks. 15 dead moose reported this year.

The dead moose should be
mapped and dated to define infested
area. Many different organizations are
studying the moose and the general

Drove down to Halfway Ranger Sta.

and examined the natural reproduction
under conditions that had been much
injured by rabbits and deer.

Had dinner there,

~~From Little Marais to Sawbill Lake~~

Collected Salix pedicularis in sphagnum swamp south of Ely, abundant in all the swamps, shrub 4 feet high, looks like Vaccinium.

Then drove on to Finland and Little Marais and Schroeder and back north about 25 miles to Sawbill Lake at a new cabin being built for a ranger station.

A beautiful lake with clean birch shores, some beavers, 4 beaverhouses seen, a pair of loons nesting and pulling. Moose come out on the shores but are scarce and grass abundant, Pickers numerous, caught 6 after supper.

Porcupine swimming lake.

Then country on next lake, Altoona Lake. Deer broke window & ate fruit, shot by ranger. Some fisher, no marten, procyonids or raccoons, some mink & weasels, lots many wolves and probably some coyotes. No Canada lynx but a few bobcats.

~~at Mission Creek~~ Sawbill Lake

Grand Marais + Juniper Lake.

Loons, a few breeding
Gulls, br. breeding on islands in L.S. a few on lakes
Mergansers, a few breeding
Am. Golden eye, " "
Blue jays, a few.
Ruffed grouse + yg. com
Spruce grouse, several
Bald eagle, 1 near Little Marais.
Fish hawks, pairs & nest, Bearskin Lake.
Goshawks, 5 at Bearskin L.?
Horned owl, reported
Pileated woodpecker, 2 heard on Bearskin L.
Flickers, com.
Kingfisher, a few
Canada jay, "
Blue jay - com.
Crow
Grackles a few.
Swift, a pair in Grand Marais.
Purple Martin a few
Tree swallow "

June 17 Sawbill Lake.

Fir of us at 6 picked for breakfast,
delicious. Entomias com.

Drove back to Jaycee crossing and
took the spur east to Cascade
where we staid to lunch

I was found dead around Cascade
last spring, supposedly from ticks.
Got a cow moose skull. Couldnt find another.
Saw two deer. No reindeer tho a
few are running at large near
J.C. Crossing. All badly infested
with cuterebra and some have died
of ticks.

The Cascade country has been
lumbered and burned recently
and is very open. Many deer
and moose.

The fire warden at Cascade in flying
up to Juniper this forenoon saw 20 moose.

We saw and photographed two pine
buds on return to J.C. crossing.

~~Grand Marais + Gunglitz Lake,~~
~~Grand Marais + Gunglitz~~
Phoebe, breeding at Bearskin

Empidonax, com.

Winter wren, a few

House wren, "

Vireo, red eye, com

Zonotrichia, a few, Northern Light Lake.

Over bird
Yellow warbler com.

Thrushes, Hermit com, a few

Robins, com.

Pine grosbeak, reported in winter, Bearskin

Juncos, a few

Chipping sparrow "

Swainson's " "

Song Sparrow com.

White throat. "

Drove back to Schroeder on
the shore Lake Superior and then
east 32 miles to Grand Marais
Very hot at JC Crossing but
cold along Lake shore.

Stopped at Arrowhead Hotel,
Ed Munstedt proprietor.

Airplane came in and landed in
lake to load up with supplies for
fire fighters back in forest on other
lakes. The men mostly out on
fire fighting lines.

Grand Marais	Gumflint
Grand Marais to Gumflint	
White pine	abn
Norway pine	"
Jack pine	"
Spruces - black & white	abn
Abies	"
Larix	"
Thuja	"
White birch	"
Shrubby birch	" in swamps
✓ Aspen	"
Balsam poplar	"
✓ Salix	" many species
Alder	"
Ash	"
✓ Fr. Mountain ash	"
✓ Pinus	"
Chokeberry	"
Servier berry	"
✓ Cornus canadensis	"
✓ " Adonis	"
Acer rubrum	"
✓ Acer spicatum	"

June 18 Grand Marais, Saturday.

Rained hard in night and well over forenoon. Cold and chilly.

Drove north to Northern Lights Lake, Bearskin Lake, Hungry Jack and Gumflint lakes.

Saw beautiful west cabins on Gumflint and Hungry Jack lakes and a nice little cabin on Bearskin kept by Mr & Mrs. A. J. Allen.
Box 337 Grand Marais.

Stayed at ranger cabin at Bearskin Lake and went up lake fishing and got moose skull at east end.

Saw some deer along road. Moose said to be common.

Pure Canadian zone all the way. some good forest but mostly second growth of birch and popple and pine hemlock.

Grand Marais to Quinquet

Grand Marais + Quinquet Lake.

✓ Rose	abu.	
✓ Red raspberries	"	
✓ Thimble berry	"	
Strawberry	"	
Highbush Cranberry	"	
Viburnum	com.	1
Elderberry	"	
✓ Blueberry, 3	"	
✓ Hazle	"	
Beakberry	"	
Lonicera 2	"	
Swampgale	"	wind stores
Lobelia	abu.	in swamps
Leatherleaf	"	"
Laural	"	"
Andromeda	"	"
Cranberry	"	"
Linnaea	"	on uplands
Gaillardia	"	"
Chimaphila	"	"
Pyrola	"	"

June 19, E. Beeskin Lake.

Got moose skull and started back. Saw 3 moose on Northern Lights Lake, all out in water. One swam half a mile and went under of tree and fed on bottom. They stay under 10, 15, 20, & 30 seconds while feeding. Swims in mud & water, feed under water and go out of sight. feed on lilies & potamogeton & other water plants.

Powerful, graceful, if ungainly and prehistoric in appearance.

Drove to Port Arthur in P.M. arriving at 8 o'clock at Hotel Mariagie but could get no information about boat to Isle Royal. Same kind of country all along north shore of lake, timber mostly poplar & birch & spruce & fir.

Grand Marais & Quinault Lake.

Clintonia	abn. in woods
Cypripedium	com. "
Pteridium	"
Cladonia	abn.
Sphagnum	"
Hypnum	"
Polytrichum	"
Utricularia	"
Cowslip	" in bottom
Buttercup	" "

Apple, in blossom at Grand Marais		
Chokeberry	"	"
Sandbarren	"	"
Shrub	"	"
Lilac	"	"
Spirea	"	"

June 20 Port Arthur, Canada.
 Could not get a boat to Lake Superior
 until June 27, and could not
 take a private trip because there
 is no customs office on the island
 and we are not allowed to land
 from Canadian soil. Will have
 to return to Grand Marais or
 Duluth to go over and may
 have to give up the trip.

A remarkable range of volcanic
 mountains along the Canadian shore
 of Lake Superior stand out in much
 worn turrits and buttes and necks
 of basalt over which the glacial
 ice has plowed and ground away
 all but the hardest parts -
 leaving picturesque cliffs and
 towers and headlands.

Got baggage left at Grand
 Marais and drove on to Duluth,
 arriving at 7 P.M. Left

Port Arthur at 10:30 Am and
stopped half an hour at Pigeon
River for lunch and on leave at
Grand Marais.

The most scenic part of the
trip is along the Lake shore
from Sault Marais to Duluth,
with high shores and headlands
rocky points and islands and
many canyons, falls and rapids.
The road keeps near the shore
and is well built. The country
is fresh and green and the air
cold and snappy. There are
some little farms and towns
but mostly cottages and resorts.
It is a fine summer country
but no place for me in winter.
217 miles from Port Arthur to
Duluth.

June 21 Duluth to Elk River
Left Duluth at 8 AM
and drove out to
and beyond to the Forest
Experiment station of the U of M
where Dr. King has his grouse
laboratory for studying
diseases and natural enemies
of the ruffed grouse. Dr King
was not there and his last
young grouse had died so
we did not stop long.
Continued on to Mission Creek,
then west and south to Mellen
where I shipped the two moose
heads and then on to Elk
River where I stopped for the
night and took the first
train to St. Paul next day.
Arrived at Elk River at 4 PM
Had supper with Leslie Bailey who
took me to Meadow Vale in evening.

June 22 Elk River to Minneapolis
Staid part of day at Elk
River and drove to
Minneapolis in afternoon.
Went to Nicollet Hotel
where arrangements were
made to meet Dr. Roberts
in morning.

Country beautiful and green
and full of wild roses and
sunflower flowers. Corn a
foot high and early potatoes
blossoming. Strawberries
ripe haying well begun.
Crops good. Farmers working
hard but for little or no
return.

June 23 St Paul and
Minneapolis.

Dr. Roberts picked me up at
McCall Hotel and took me
over to University Museum
where we met Aldous and had
a long talk over game
and wild life conditions in
the state.

Saw Dr. Green and went to
lunch with him and talked
over rabbit and game studies
and diseases and saw his
laboratory and moving pictures
of rabbits.

Then saw Mr. Cox and
talked over Caribou, Moose,
deer and beavers with him
but Edad Suifer was away
so we could not see him.

Went out to Crow Peak and
saw the wild animals, the Elk

and buffalo were in fine condition, but several of the deer were mangy as were the woodchucks, prairie dogs and some of the foxes.

The animals are generally unprotected from sun and heat and very uncomfortable and badly housed.

Had dinner with Aldous and his lovely family and caught a 7:45 train out of St Paul.

A beautiful day, country fresh and green and beautiful.

July 2nd 1897 stopped off at Wausau Wisconsin at 3 AM and ran up to Tomahawk to see the traps being made by the American Live Trap Co. but found few of practical importance being made at present. The folding live trap is their best trap and is good for muskrats, cats and small fur bearers but is expensive and complicated. Was hoping to get some line on better traps for general use.

Returned to Wausau on next train and continued to Milwaukee.

A pleasant day, rain in evening.

June 25 Arrived Chicago
8:30 AM and had to wait
till 1:40 PM for train
to Washington.
Wrote reports in Union
Station.

June 26 Arrived at Washington
8:40 AM on Capitol Limited
B.O., a delightful air cooled
train with good service.

July 27 + 28, 1932

At Washington D.C.
Warm days, up to 92 and 93,
but not uncomfortable.

In New Building.

June 30, 31 Working on reports.
Not so warm.

July 1 and 2 Finished reports
on mammals of northern
Minnesota.

July 15 Left Washington at 4:30
PM and drove to Luray by 8:30
Went through Luray Cave after
9 PM and was surprised to find
it the best cave in the east,
except that the bats are all
screened out. It is not large
or extensive but has a great
profusion of massive formations
in good condition. The colors
are all stained by yellow clay
as are all eastern caves, but
the forms are massive and old
and beautiful.

The temperature is said to be
54 all the year. There seems
to have been no original opening
but cold air coming out of the rock
led to its discovery. Not likely
to have fossils or life under
life.

July 16. Stayed at a very comfortable hotel, the Munsie, and got an early start for the Girl Scout Camp beyond Mt. Solon, arriving at 9:30 AM.

Was immediately called upon to catch or show a rattlesnake found in camp. Showed how his fangs worked and how the venom squirted out. Then made a good specimen of him.

Set traps and explored and caught a few other snakes. Betty had a live Eutamias in a cage; apparently the first record for Virginia.

July 28 - The Eutamias escaped on upper piazza and probably got into back yard.

July 17 - Sunday, Scout Camp
May Flather.

Went to traps but caught
nothing. Set more traps and
left for Betty & look after.
Got a black snake.

Came back in evening to
Washington, Virginia, just east
of Blue Ridge and staid all
night. Good roads and
beautiful country.

144 miles to Girl Scout Camp
July 18, Started at 8:00 and reached
Washington DC at 9:15
A beautiful morning and no
traffic.

Brought a live *Eutamias* home
for study.

July 26 Washington D.C.

No real hot weather up to present time and now delightfully cool. On several days the temperature has gone up to 92, 95 and on one day to 97° F. It generally ranges from 87 to 95, with cool nights and delightful mornings. A rain every few days cools off the air and when it gets warm again there is more rain. Some days are rather damp and steamy after the rains but generally the air is dry and pleasant.

Still many people kick about the hot weather here. I'd like to bring in just one hot day - say 112, and let them see what it is like.

Aug. 4, 1932 Washington

Read Wm M. Rush's Elk report all forenoon. It is excellent!

In P.M. went with Lindstrom and Ray & took moving pictures of bad methods of conservation, setting muskrat traps out of season and snaring rabbit. Caught the rabbit in snare but he was a big tame Belgian and not very active - Got all jiggers.

Pleasant weather, 88° maximum.

Spending no rest for optimism
generally, and the story of a buck
or doe having a well balanced
head. Two or three times as
many does as bucks are seen

We are certain our work
 of the western part of Minnesota could
 by this trip. They are frequently
 along the road on both sides and
 the edge of the lake and then back
 which are the last index of numbers
 are abundant everywhere except
 near the outlet. Still in the
 place except along the lake edge
 of St. Louis has any doubt
 in our knowledge from them.
 There is ample food for many
 more deer, and would there be
 many more and in places
 from there on many. The abundance
 of people, cattle, hogs, deer,
 brush, maple, pine, cherry, blueberry,
 which are, indeed, wonderful
 looking and a lot of other
 things are in the mountains.

—

Aug. 5, drove from Washington
 up to Harrisonburg Va., on
 our way to the Girl Scout Camp
 and stayed all night at the
 Ashby Park Inn, a nice little
 place at the edge of town.

Aug. 6 - Drove to Mt. Solon and a
 few miles beyond to the Girl Scout
 Camp, arriving at 9 AM. Saturday.
 Set traps and helped make up
 specimens. Gave talk in evening.

Aug. 7, Sunday. Caught nothing.
 Went on Nature hike with a bunch
 of the girls. Saw but little
 of interest as we did not get
 off till 11 AM. Saw one Black
 Vulture.

Left camp at 3:40 and drove
 to Washington DC at 9:15.
 144 miles. Good road and
 pleasant drive.

On morning of June 18, drove north
of Grand Meadows to Northern Light
Lake where as many as 13 whoose
have been counted in one time. (Several
around the lakes and meadows
were seen top of Northern Light peak.
Moose often seen at Roanoke and Quilley
lakes. A few found dead in spring.

Receipts
-Mr. M. J. Volantini, 5, East Parker,
found two porcupines capturing
last fall in early November
in the Superior Hotel, Grand, Minn.
The porcupine was on his back and
the male on his belly and they
were squeaking of nothing as
they separated. 2 of them on the
have given me a rock ledge
where they had a den and
There were a little more on the
ground. The man with
him involved in red boots
up the operation by killing
them both with his pocket knife
(Compare photo)
Mr. Allen of Roanoke has a photograph
of two porcupines standing facing each other
and he said according to me they are good nature,
possibly coming.

over at the
at Grand Maive the saying
of June 17 we were told 9.15 was so
found first worth of the the opening
one said to be incorrect

not that last day.
The hospital at Caesars had been
22 miles this morning, June 17, in
trying to find it at last. Many
hills set with signs were seen
but we had to give up and
over it.

On June 17, we went out to South
Lake but saw no more than that
morning came back to J.C. Burroughs
set up 2 Cascade Lake on the
Apex. Saw two line of full
river in lakes near the Thompson
River and saw lots of drift rock
been found dead this morning
there. We got the skull of our old car
that had died. It was in March or April
and tried to put an old bull near the
road that had died.

Meyer - Red Lake, Minn.
 Many tracks numerous in
 big swamp north of Red Lake,
 3 miles S. of Red Lake, 3 miles S. of
 3 cabins, June 7, 1932, on the way
 from Red Lake to Helena Lake, on foot.
 One seen had one calf, another calf,
 and one did not have any.
 None out in open swamp has been
 any words of protest. Many tracks
 along ditch down to edge of Red
 Lake and one was seen on edge
 of lake near ^{front} West side last night.
 Many numbers along Red Lake
 Pits of ~~Moose~~ ^{moose} ~~hairs~~, none of
 Puntail, date of one old one
 seen in ~~Minnesota~~ ^{Minnesota} June 15,
 One more killed June 16, was
 31 but the 3 were seen separately
 in field.

Said to have been common all over the
country north of the Canadian boundary
but was killed off many years ago.
2d Mammal, getting commoner still at
Green's Marsh being one was killed
north of there about 30 years ago, the
last he knew of.

They were said to be 150 caribou
near Ping Island 30 years ago.
(Mr. Foy) but in number two
years down to very few.
None are known to have been
killed in last years but three
were 9 weeks in their vicinity
last week and only one of them
was taken by Geo. H. Johnson.
The 8 are this year.
Many reports are along the north
coast of Red Lake saying that some
should be in game refuge.
Caribou are said to be still found near
the coast and 50 years ago they were
killed in 1927 by
Balt Harbor, The City Indian.
They are said to occasionally cross
the line into the U.S. and if we could
keep the number killed off from our needs
make much more sense.

This call note is a great, even
like a pig, noise of constant
a low, soft as heavy as a mouse.

Trails with soft short in strong
contrast to noisy tracks.
Lifted in open moving of deep
spectrum, elevated in a hollow way.

Within 100 yds of the
road, near the road, about
10 miles NE of Washburn.
This vicinity of the road, about
the way to the 12 - in all in
of the middle of the road take.
Just 7, near the road, with path
we saw two of many tracks in
Geo. H. Johnson about 3 weeks ago and
all seen last fall, & seen by
Said to be 8 weeks after the tracks,
Washburn, 1 day 2 days.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY.

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U. S. Department of Agriculture,

Washington, D. C.

Bureau of Biological Survey.

11035 ♀ 2000, 95, 40, 13, 6
6 ♀ 2000, 190, 17, 18, 13
7 ♂ 2000, 166, 40, 21, 13

G. W. Knight, Am. Foulcher
Walter H. Knight, Gammadin
Geo. H. Johnson, Hesper. d. pur
Nashish, Murr, and Hesper.

